

## SEARCH REQUEST FORM

## Scientific and Technical Information Center

Requester's Full Name: Dwayne Bost Examiner #: 48951 Date: 3/10/04  
 Art Unit: 262 Phone Number 30 \_\_\_\_\_ Serial Number: 101603655  
 Mail Box and Bldg/Room Location: \_\_\_\_\_ Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

US 5,105,409

STAFF USE ONLY		Type of Search	Vendors and cost where applicable
Searcher: <u>KEJ</u>		NA Sequence (#)	STN _____
Searcher Phone #:		AA Sequence (#)	Dialog _____
Searcher Location:		Structure (#)	Questel/Orbit _____
Date Searcher Picked Up:		Bibliographic	Dr. Link _____
Date Completed:		Litigation	Lexis/Nexis _____
Searcher Prep & Review Time:		Fulltext	Sequence Systems _____
Clerical Prep Time:		Patent Family	WWW/Internet _____
Online Time: <u>25</u>		Other	Other (specify) _____

Query/Command : prt max legalall

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*1/1 PLUSPAT - ©QUESTEL-ORBIT*

**PN** -  US5105409 A 19920414 [US5105409]  
**TI** - (A) METHOD AND APPARATUS FOR OPTICAL RECORDING AND  
REPRODUCTION WITH TRACKING SERVO REDUCING TRACK OFFSET  
**PA** - (A) HITACHI LTD (JP)  
**PA0** - Hitachi, Ltd., Tokyo [JP]  
**IN** - (A) KAKU TOSHIMITSU (JP); SHIGEMATSU KAZUO (JP); SUGIYAMA  
HISATAKA (JP); MAEDA TAKESHI (JP); TAKASAGO MASAHIRO (JP)  
**AP** - US23097188 19880811 [1988US-0230971]  
**PR** - JP20400787 19870819 [1987JP-0204007]  
**IC** - (A) G11B-007/095  
**EC** - G11B-007/09C  
**PCL** - ORIGINAL (O) : 369044310; CROSS-REFERENCE (X) : 369044330  
369044350 369044420  
**DT** - Corresponding document  
**CT** - US4651314; US4742505; US4748609; US4751695; US4774698; US4785442;  
US4807210; US4819220  
**STG** - (A) United States patent  
**AB** - Disclosed is an optical recording and reproducing apparatus comprising a light source directing a light spot toward a recording medium, a detection system detecting light reflected from the recording medium to derive an electrical signal from the reflected light, an information processing circuit modulating the intensity of the light spot according to writing pulses to record information on the recording medium and using the electrical signal to reproduce information from the recording medium, and a tracking servo circuit carrying out tracking servo operation on the basis of the electrical signal and including an extracting circuit connected to a source of extracting pulses having a pulse width at least equal to the writing pulse width so that writing pulse parts contained in the electrical signal are extracted during recording information, whereby a track offset occurring during information recording can be minimized, and the stability of the tracking servo system can be improved.

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*1/1 LGST - ©EPO*

**PN** -  US5105409 A 19920414 [US5105409]  
**AP** - US23097188 19880811 [1988US-0230971]  
**ACT** - 19880811 US/AS02-A  
ASSIGNMENT OF ASSIGNEE'S INTEREST  
OWNER: HITACHI, LTD. 6, KANDA SURUGADAI 4-CHOME, CHIYODA-;  
EFFECTIVE DATE: 19880729

19880811 US/AS02-A  
ASSIGNMENT OF ASSIGNEE'S INTEREST  
OWNER: KAKU, TOSHIMITSU; EFFECTIVE DATE: 19880729

19880811 US/AS02-A  
ASSIGNMENT OF ASSIGNOR'S INTEREST  
OWNER: SHIGEMATSU, KAZUO; EFFECTIVE DATE: 19880729

19880811 US/AS02-A  
ASSIGNMENT OF ASSIGNOR'S INTEREST  
OWNER: SUGIYAMA, HISATAKA; EFFECTIVE DATE: 19880729

19880811 US/AS02-A  
ASSIGNMENT OF ASSIGNOR'S INTEREST  
OWNER: MAEDA, TAKESHI; EFFECTIVE DATE: 19880729

19880811 US/AS02-A  
ASSIGNMENT OF ASSIGNOR'S INTEREST  
OWNER: TAK; EFFECTIVE DATE: 19880729

20000627 US/FP-A [-]  
EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE  
EFFECTIVE DATE: 20000414

20031028 US/RF-A  
REISSUE APPLICATION FILED  
EFFECTIVE DATE: 20030805

UP - 2003-45

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1 / 1 CRXX - ©CLAIMS/RRX  
PN -  5,105,409 A 19920414 [US5105409]  
PA - Hitachi Ltd JP  
ACT - 20000627 EXPIRED (20000414)

20030805 REISSUE REQUESTED  
ISSUE DATE OF O.G.: 20031028  
REISSUE REQUEST NUMBER: 10/633655  
EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 2651

Reissue Patent Number:

UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

5105409

<=1> GET 1st DRAWING SHEET OF 4

April 14, 1992

Method and apparatus for optical recording and reproduction  
with tracking servo reducing track offset

REISSUE: August 5, 2003 - Reissue Application filed Ex. Gp.: 2651; Re. S.N.  
10/633,655 (O.G. October 28, 2003)

APPL-NO: 230971 (07)

FILED-DATE: August 11, 1988

GRANTED-DATE: April 14, 1992

CORE TERMS: pulse, recording, sub, tracking, optical, track, disk, amplifier,  
offset, servo ...

**LEXIS-NEXIS**

Library: PATENT

File: ALL

Your search request has found no CASES.

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What you enter will be Search Level 1.

For further explanation, press the H key (for HELP) and then the ENTER key.

5,105,409 OR 5105409

**LEXIS-NEXIS**  
**Library: PATENT**  
**File: JNLS**

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For further explanation, press the H key (for HELP) and then the ENTER key.

5,105,409 OR 5105409

**LEXIS-NEXIS**  
**Library: NEWS**  
**File: CURNWS**

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For further explanation, press the H key (for HELP) and then the ENTER key.

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S7 1 PN=US 5105409  
? t 7/39/1

7/39/1

DIALOG(R) File 345:Inpadoc/Fam.& Legal Stat  
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8559205  
Basic Patent (No,Kind,Date): EP 303936 A2 19890222 <No. of Patents: 008>  
Patent Family:

Patent No	Kind	Date	AppliC No	Kind	Date
DE 3887228	C0	19940303	EP 88112894	A	19880808
DE 3887228	T2	19940505	EP 88112894	A	19880808
EP 303936	A2	19890222	EP 88112894	A	19880808 (BASIC)
EP 303936	A3	19901128	EP 88112894	A	19880808
EP 303936	B1	19940119	EP 88112894	A	19880808
JP 1048226	A2	19890222	JP 87204007	A	19870819
JP 2585281	B2	19970226	JP 87204007	A	19870819
US 5105409	A	19920414	US 230971	A	19880811

Priority Data (No,Kind,Date):  
JP 87204007 A 19870819

PATENT FAMILY:  
GERMANY (DE)

Patent (No,Kind,Date): DE 3887228 C0 19940303  
VERFAHREN UND GERAET FUER OPTISCHE AUFNAHME UND WIEDERGABE. (German)  
Patent Assignee: HITACHI LTD (JP)  
Author (Inventor): KAKU TOSHIMITSU (JP); SHIGEMATSU KAZUO (JP);  
SUGIYAMA HISATAKA (JP); MAEDA TAKESHI (JP); TAKASAGO MASAHIRO (JP)  
Priority (No,Kind,Date): JP 87204007 A 19870819  
AppliC (No,Kind,Date): EP 88112894 A 19880808  
IPC: \* G11B-007/09; G11B-007/095; G11B-007/08  
Derwent WPI Acc No: \* G 89-055386  
JAPIO Reference No: \* 130250P000023  
Language of Document: German  
Patent (No,Kind,Date): DE 3887228 T2 19940505  
VERFAHREN UND GERAET FUER OPTISCHE AUFNAHME UND WIEDERGABE. (German)  
Patent Assignee: HITACHI LTD (JP)  
Author (Inventor): KAKU TOSHIMITSU (JP); SHIGEMATSU KAZUO (JP);  
SUGIYAMA HISATAKA (JP); MAEDA TAKESHI (JP); TAKASAGO MASAHIRO (JP)  
Priority (No,Kind,Date): JP 87204007 A 19870819  
AppliC (No,Kind,Date): EP 88112894 A 19880808  
IPC: \* G11B-007/09; G11B-007/095; G11B-007/08  
Derwent WPI Acc No: \* G 89-055386  
JAPIO Reference No: \* 130250P000023  
Language of Document: German

GERMANY (DE)

Legal Status (No,Type,Date,Code,Text):  
DE 3887228 P 19940303 DE REF CORRESPONDS TO  
(ENTSPRICHT)  
EP 303936 P 19940303  
DE 3887228 P 19940505 DE 8373 TRANSLATION OF PATENT  
DOCUMENT OF EUROPEAN PATENT WAS RECEIVED AND  
HAS BEEN PUBLISHED (UEBERSETZUNG DER  
PATENTSCHRIFT DES EUROPAEISCHEN PATENTES IST  
EINGEGANGEN UND VEROEFFENTLICHT WORDEN)  
DE 3887228 P 19950223 DE 8364 NO OPPOSITION DURING TERM OF  
OPPOSITION (EINSPRUCHSFRIST ABGELAUFEN OHNE  
DASS EINSPRUCH ERHOBEN WURDE)

EUROPEAN PATENT OFFICE (EP)

Patent (No,Kind,Date): EP 303936 A2 19890222

METHOD AND APPARATUS FOR OPTICAL RECORDING AND REPRODUCTION (English;  
French; German)

Patent Assignee: HITACHI LTD (JP)

Author (Inventor): KAKU TOSHIMITSU; SHIGEMATSU KAZUO; SUGIYAMA  
HISATAKA; MAEDA TAKESHI; TAKASAGO MASAHIRO

Priority (No,Kind,Date): JP 87204007 A 19870819

Applic (No,Kind,Date): EP 88112894 A 19880808

Designated States: (National) DE; GB

IPC: \* G11B-007/09; G11B-007/08

Derwent WPI Acc No: ; G 89-055386

Language of Document: English

Patent (No,Kind,Date): EP 303936 A3 19901128

METHOD AND APPARATUS FOR OPTICAL RECORDING AND REPRODUCTION (English;  
French; German)

Patent Assignee: HITACHI LTD (JP)

Author (Inventor): KAKU TOSHIMITSU; SHIGEMATSU KAZUO; SUGIYAMA  
HISATAKA; MAEDA TAKESHI; TAKASAGO MASAHIRO

Priority (No,Kind,Date): JP 87204007 A 19870819

Applic (No,Kind,Date): EP 88112894 A 19880808

Designated States: (National) DE; GB

IPC: \* G11B-007/09; G11B-007/08

Derwent WPI Acc No: \* G 89-055386

JAPIO Reference No: \* 130250P000023

Language of Document: English

Patent (No,Kind,Date): EP 303936 B1 19940119

METHOD AND APPARATUS FOR OPTICAL RECORDING AND REPRODUCTION (English;  
French; German)

Patent Assignee: HITACHI LTD (JP)

Author (Inventor): KAKU TOSHIMITSU (JP); SHIGEMATSU KAZUO (JP);  
SUGIYAMA HISATAKA (JP); MAEDA TAKESHI (JP); TAKASAGO MASAHIRO (JP)

Priority (No,Kind,Date): JP 87204007 A 19870819

Applic (No,Kind,Date): EP 88112894 A 19880808

Designated States: (National) DE; GB

IPC: \* G11B-007/09; G11B-007/095; G11B-007/08

Derwent WPI Acc No: \* G 89-055386

JAPIO Reference No: \* 130250P000023

Language of Document: English

EUROPEAN PATENT OFFICE (EP)

Legal Status (No,Type,Date,Code,Text):

EP 303936 P 19870819 EP AA PRIORITY (PATENT  
APPLICATION) (PRIORITAET (PATENTANMELDUNG))

JP 87204007 A 19870819

EP 303936 P 19880808 EP AE EP-APPLICATION  
(EUROPAEISCHE ANMELDUNG)

EP 88112894 A 19880808

EP 303936 P 19890222 EP AK DESIGNATED CONTRACTING  
STATES IN AN APPLICATION WITHOUT SEARCH  
REPORT (IN EINER ANMELDUNG OHNE  
RECHERCHENBERICHT BENANNTE VERTRAGSSTAATEN)

DE GB

EP 303936 P 19890222 EP A2 PUBLICATION OF APPLICATION  
WITHOUT SEARCH REPORT (VEROEFFENTLICHUNG DER  
ANMELDUNG OHNE RECHERCHENBERICHT)

EP 303936 P 19901128 EP AK DESIGNATED CONTRACTING  
STATES IN A SEARCH REPORT (IN EINEM

RECHERCHENBERICHT BENANnte VERTRAGSSTAATEN)

		DE GB
EP 303936	P 19901128 EP A3	SEPARATE PUBLICATION OF THE SEARCH REPORT (ART. 93) (GESONDerte VEROEFFENTLICHUNG DES RECHERCHENBERICHTS (ART. 93))
EP 303936	P 19910206 EP 17P	REQUEST FOR EXAMINATION FILED (PRUEFUNGSAНTRAG GESTELLT) 901212
EP 303936	P 19920603 EP 17Q	FIRST EXAMINATION REPORT (ERSTER PRUEFUNGSBESCHEID) 920416
EP 303936	P 19940119 EP AK	DESIGNATED CONTRACTING STATES MENTIONED IN A PATENT SPECIFICATION (IN EINER PATENTSCHRIFT ANGEFUEHRTE BENANnte VERTRAGSSTAATEN)
		DE GB
EP 303936	P 19940119 EP B1	PATENT SPECIFICATION (PATENTSCHRIFT)
EP 303936	P 19940303 EP REF	CORRESPONDS TO: (ENTSPRICHT) DE 3887228 P 199403.03
EP 303936	P 19950111 EP 26N	NO OPPOSITION FILED (KEIN EINSPRUCH EINGELEGT)
EP 303936	P 20020101 GB IF02/REG	EUROPEAN PATENT IN FORCE AS OF 2002-01-01

JAPAN (JP)

Patent (No,Kind,Date): JP 1048226 A2 19890222  
OPTICAL DISK DEVICE (English)  
Patent Assignee: HITACHI LTD  
Author (Inventor): KAKU TOSHIMITSU; SHIGEMATSU KAZUO; SUGIYAMA  
HISATAKA; MAEDA TAKESHI; TAKASAGO MASAHIRO  
Priority (No,Kind,Date): JP 87204007 A 19870819  
Applic (No,Kind,Date): JP 87204007 A 19870819  
IPC: \* G11B-007/00  
JAPIO Reference No: ; 130250P000023  
Language of Document: Japanese  
Patent (No,Kind,Date): JP 2585281 B2 19970226  
Priority (No,Kind,Date): JP 87204007 A 19870819  
Applic (No,Kind,Date): JP 87204007 A 19870819  
IPC: \* G11B-007/00  
Derwent WPI Acc No: \* G 89-055386  
JAPIO Reference No: \* 130250P000023  
Language of Document: Japanese

UNITED STATES OF AMERICA (US)

Patent (No,Kind,Date): US 5105409 A 19920414  
METHOD AND APPARATUS FOR OPTICAL RECORDING AND REPRODUCTION WITH  
TRACKING SERVO REDUCING TRACK OFFSET (English)  
Patent Assignee: HITACHI LTD (JP)  
Author (Inventor): KAKU TOSHIMITSU (JP); SHIGEMATSU KAZUO (JP);  
SUGIYAMA HISATAKA (JP); MAEDA TAKESHI (JP); TAKASAGO MASAHIRO (JP)  
Priority (No,Kind,Date): JP 87204007 A 19870819  
Applic (No,Kind,Date): US 230971 A 19880811  
National Class: \* 369044310; 369044330; 369044350; 369044420  
IPC: \* G11B-007/095  
Derwent WPI Acc No: \* G 89-055386  
JAPIO Reference No: \* 130250P000023  
Language of Document: English

UNITED STATES OF AMERICA (US)

Legal Status (No, Type, Date, Code, Text):

US 5105409	P	19870819	US AA	PRIORITY (PATENT)
		JP 87204007	A	19870819
US 5105409	P	19880811	US AE	APPLICATION DATA (PATENT)
			(APPL. DATA (PATENT))	
		US 230971	A	19880811
US 5105409	P	19880811	US AS02	ASSIGNMENT OF ASSIGNOR'S
			INTEREST	
		HITACHI, LTD.	6, KANDA SURUGADAI 4-CHOME,	
		CHIYODA-KY,	TOKYO, JAPAN, A CORP. OF J ;	
		KAKU, TOSHIMITSU	: 19880729; SHIGEMATSU,	
		KAZUO	: 19880729; SUGIYAMA, HISATAKA :	
			19880729; MAEDA, TAKESHI	: 19880729; TAK :
			19880729	
US 5105409	P	19920414	US A	PATENT
US 5105409	P	20000627	US FP	EXPIRED DUE TO FAILURE TO
			PAY MAINTENANCE FEE	
		20000414		
US 5105409	P	20031028	US RF	REISSUE APPLICATION FILED
			(REISSUE APPL. FILED)	
		DATE: 20030805		